

REMARKS

This application has been reviewed in light of the Office Action dated January 3, 2003. Claims 1-20 are pending in this application. Claim 18 has been amended to define still more clearly what Applicants regard as their invention, in terms that distinguish over the art of record. Claims 1, 2, 5, 6, 9-15, and 18 are in independent form. Favorable reconsideration is requested.

A Supplemental Information Disclosure Statement is enclosed hereto.

Applicants gratefully acknowledge the allowance of Claims 1-17.

The Office Action rejected Claim 18 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,954,744 (Suzuki et al.) and rejected Claims 18 and 19 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,313,815 (Takeda et al.). The Office Action also rejected Claim 20 under 35 U.S.C. § 103(a) as obvious from Takeda et al. in view of Suzuki et al. Applicants respectfully traverse these rejections. —

Applicants submit that amended independent Claim 18, together with dependent Claims 19 and 20 dependent from Claim 18, are patentably distinct from the proposed combination of the cited prior art at least for the following reasons.

An aspect of the present invention set forth in Claim 18 is an electron-emitting device that includes a deposit composed chiefly of carbon including a graphite structure and an electrode electrically connected to the deposit. The deposit contains one or more elements selected from the group consisting of lithium, potassium, sodium, calcium, strontium, and barium.

Notable features of Claim 18 include the deposit composed chiefly of carbon including a graphite structure, and the deposit includes one or more elements selected from the group consisting of lithium, potassium, sodium, calcium, strontium, and barium. Support in the specification for this feature can be found at least from page 12, line 17, to page 13, line 3. (It is to be understood, of course, that the scope of Claim 18 is not limited to the details of this embodiment, which is referred to only for purposes of illustration.)

Suzuki et al. relates to an electron-emitting device and electron-beam generator. The Office Action states that Suzuki et al. discloses an electron-emitting device comprising “[a] carbon film 2 and an electrode 3, 4 electrically connected to the carbon film, wherein barium is contained in the carbon film.” However, Applicants disagree with this assertion. From column 5, line 10, to column 7, line 18, Suzuki et al. discusses a structure wherein a conductive film 9 is disposed above or below a thin film 2. Carbon is used as a material of the thin film 2 as discussed at column 5, line 23. Moreover, in Suzuki et al., barium is cited in the specification at column 3, line 53, as an example of a type of material used in the conductive film. Indeed, Applicants submit that nothing in either column 3, lines 26-57 (mentioned in the Office Action) or anywhere else in Suzuki et al., has been found, or pointed out in the Office Action, that would teach or suggest an electron-emitting device that includes a deposit composed chiefly of carbon including a graphite structure, wherein the deposit contains one or more elements selected from the group consisting of lithium, potassium, sodium, calcium, strontium, and barium, as recited in Claim 18.

Accordingly, Applicants submit that at least for these reasons, Claim 18 is patentable over Suzuki et al.

Takeda et al. relates to an electron source and an image-forming apparatus. The Office Action states that Takeda et al. discloses an electron-emitting device comprising a substrate 1, a plurality of electron-emitting device, and wiring connected to the electron emitting device. In addition, the Office Action states that Takeda et al. discloses that barium is contained in the carbon film. Applicants note, however, that the specification at column 7, lines 30-38, discuss barium and carbon as types of material used for constructing the thin film. However, Applicants submit that nothing in either column 7, lines 30-38, or anywhere else in Suzuki et al., has been found, or pointed out in the Office Action, that would teach or suggest an electron-emitting device that includes a deposit composed chiefly of carbon including a graphite structure, wherein the deposit contains one or more elements selected from the group consisting of lithium, potassium, sodium, calcium, strontium, and barium, as recited in Claim 18.

Accordingly, Applicants submit that at least for these reasons, Claim 18 is patentable over Takeda et al.

The other rejected claims in this application depend from Claim 18 discussed above, and, therefore, are submitted to be patentable for at least the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, individual reconsideration of the patentability of each claim on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicants' undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,

Peter G. Thurlow  
Attorney for Applicants

Registration No. 47,138

FITZPATRICK, CELLA, HARPER & SCINTO  
30 Rockefeller Plaza  
New York, New York 10112-3801  
Facsimile: (212) 218-2200

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